

# Obstacles to Enhancing Professional Development with Digital Tools in Rural Landscapes

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Citation: Hunt-Barron, S., Tracy, K. N., Howell, E., & Kaminski, R. (2015). Obstacles to enhancing professional development with digital tools in rural landscapes. *Journal of Research in Rural Education*, 30(2), 1-14.

*This case study examines the use of online tools, including blogs, as a means of enhancing face-to-face professional development in writing instruction for teachers in rural districts. Since many rural districts serve large physical areas that are geographically distant from larger metropolitan areas and/or colleges and universities, teachers in these districts may have fewer professional development opportunities. This study examines the use of digital tools to offer continued support when a physical presence may not be feasible. Over the course of a year, middle and high school English language arts teachers in three rural districts in South Carolina received approximately 60 hours of face-to-face professional development in writing instruction. To increase communication and collaboration between teachers and professional development providers, as well as to offer ongoing support for teachers throughout the year, Google Sites with blogs were established for each district. Teachers reported primarily using the sites to download and review professional development materials. Results revealed only partial participation in blogging across districts. Blogs were used in several ways: to report implementation of strategies modeled through professional development, to reflect on assigned readings, to express positive responses to the professional development, and to voice concerns over implementation. The authors discuss possible obstacles to both participation and collaboration via blogs, as well as the challenges rural settings may pose when using digital technology more broadly to support professional development.*

Rural schools continue to be an important part of the educational landscape of the United States. With more than half of all school districts (57%) located in rural areas, over 12 million students, or approximately 24% of our nation's schoolchildren, attend rural schools (National Center for Education Statistics [NCES], 2013). According to the most recent data available, rural high schools have a graduation rate of 77.5% on average, as calculated using the Swanson model, which accounts for year-to-year retention of

individual students (Strange, Johnson, Showalter, & Klein, 2012). Some states—including South Carolina, where this study took place—do not release figures that allow the Swanson index to be calculated. It is believed that inclusion of data from these states would likely lower the overall rural graduation rate calculated via the Swanson index (Strange et al., 2012).

Strange et al. (2012) note, "Rural education frustrates some who wish it would conform to its image of simplicity" (p. 21). In fact, rural districts are complex and diverse, serving an increasingly varied student population with growing numbers of English learners and students who are living in poverty (Johnson, Showalter, Klein, & Lester, 2014). Rural schools often have the advantage of smaller classes and a strong sense of community, but they also face issues of underfunding and a lack of resources (Bouck, 2004). Scholars have raised concerns about structural and

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The *Journal of Research in Rural Education* is published by the Center on Rural Education and Communities, College of Education, The Pennsylvania State University, University Park, PA 16802. ISSN 1551-0670

social inequalities that may lead to continued challenges in rural schools (Lindahl, 2011; Roscigno, Tomaskovic-Devey, & Crowley, 2006), but these concerns have gone largely unnoticed in public discourse.

The difficulty of providing effective professional development for teachers compounds the distinct challenges facing rural schools. Barley and Beesley (2007) found effective professional development to be a main factor in the success of high-performing, high-needs rural schools, but more research is needed to understand how to provide such professional development to rural schools (Arnold, Newman, Gaddy, & Dean, 2005). Geographically dispersed schools and the varying and specific needs of rural teachers based on their unique contexts make providing professional development particularly perplexing (Peterson, 2012; Wilson & Ringstaff, 2010). No two rural districts, even within the same region, are the same. How can we offer effective professional development to teachers in these divergent, dispersed areas?

This article focuses on year one of a two-year study in which professional development addressed the implementation of the English language arts Common Core State Standards (CCSS). Approximately 60 hours of professional development, focusing on improving students' writing, were provided to three rural school districts in year one. This work was funded by the National Writing Project (NWP) through a U.S. Department of Education grant. The project was conceived as a way to offer effective professional development in writing to teachers in what are classified by the National Center for Educational Statistics as rural, low-income schools. Specifically, the professional development offers at least 90 hours of professional development over the course of two years as part of a partnership with a local NWP site. The NWP site was selected to provide professional development based on the following core NWP principles: teachers at every level are the agents of reform; writing should be taught at every grade level, and there is no single approach to teaching writing; professional development programs should provide ongoing opportunities for collaboration among teachers across content and grade levels, offering opportunities for teachers to write and to examine theory, research, and practice together systematically; and teachers who are well-informed and effective in their practice can be successful teachers of other teachers (NWP, 2010).

School districts in three rural locations in South Carolina were invited to participate in a professional development program focused on writing instruction and the implementation of the CCSS in English language arts classrooms. Thirty-six teachers in grades 7 through 10 were part of a two-year professional development program, which included a minimum of 90 hours of face-to-face interaction with professional development providers. As part of the

professional development, teacher consultants, all of whom were experienced master teachers currently teaching in a K-12 setting, modeled explicit writing instructional strategies and demonstration lessons in teachers' classrooms in an effort to share research-based instructional practices. Teacher consultants also served as coaches, sharing their expertise and supporting teachers through co-planning with individual teachers in each district.

One of the questions that quickly emerged around the design of the professional development program was related to distance. Specifically, how could we as providers of professional development maintain contact and communication with teachers located hours away, whom we saw on a monthly basis? We examine the effectiveness of a professional development model in which teachers communicate regularly with professional development providers through online forums as they implement strategies modeled during face-to-face sessions. This article specifically discusses one aspect of this ongoing study: the effectiveness of online forums as tools for feedback, conversation, and collaboration among teachers and professional development providers.

## **Theoretical Framework**

### **Professional Development**

Research in the area of professional development suggests that teachers benefit most from professional development when it occurs over a period of time, is integrated into a school's improvement efforts, and involves the entire faculty in a collaborative and collegial environment (Darling-Hammond & Richardson, 2009). Professional development that emphasizes such elements as active teaching, observation, assessment, and reflection rather than abstract discussions lends itself to teacher growth and change (Darling-Hammond & McLaughlin, 1995), as does professional development that incorporates coaching (Quick, Holtzman, & Chaney, 2009) and tangible support for teachers (Bean & Morewood, 2007). Teacher learning should be interactive and social, with teachers developing their own communities of practice within and across schools (Borko, 2004; Cochran-Smith & Lytle, 1999). In sum, effective professional development is collaborative, long-term, school-based, connected to student outcomes, and linked to the curriculum that teachers are using (Dillon, O'Brien, Sato, & Kelly, 2011; Garet, Porter, Desimone, Birman, & Yoon, 2001).

### **Online Professional Development**

The "core principles of [high-quality] professional development transcend both face-to-face and online

platforms” (Holmes, Signer, & MacLeod, 2011, p. 77), but as online learning grows increasingly popular as a means for teachers to further their own knowledge and improve their skills (Dede, 2009), more research is needed to explain what makes effective online professional development. Recent studies have examined online professional development environments in terms of instructor preparation and retention (Storandt, Dossin, & Lacher, 2012), teacher pedagogical knowledge and student outcomes in mathematics (Dash, 2012), and pedagogical knowledge for rural ESL teachers (Manner & Rodriguez, 2012). Holmes et al. (2011) found that social presence—defined as interactions with colleagues online through discussion, chats, postings, and e-mails—and teacher presence were the greatest factors in participants’ learning and satisfaction with online professional development. Other research supports the significant role the facilitator/teacher plays in online professional development (Swan et al., 2002). To develop true communities of practice among teachers, Bonk and Graham (2006) recommend using a hybrid model of professional development that incorporates both an online learning community and periodic face-to-face sessions with teachers. This model has been used successfully in providing professional development for secondary science teachers (Wilson & Ringstaff, 2010) and seemed to be a model worth emulating in our own rural contexts.

### **Self-Efficacy**

Bandura’s (1997) model of self-efficacy, or one’s belief that he or she is capable of achieving a specific goal, offers a lens through which to view the experiences of teachers who are participating in professional development. As we structured our professional development for these rural schools, we purposefully set up opportunities for teachers to have vicarious experiences, through teacher consultants’ modeling strategies used in their own classrooms with students at the rural teachers’ schools (in-class demonstration lessons) or with the rural teachers themselves (in-service demonstration lessons). Social persuasion, through the sharing of successes and challenges at each face-to-face professional development and online, as well as ongoing coaching throughout the professional development (again, face-to-face and online) offered encouragement to try new strategies in classrooms and support for teachers as they experimented with new practices in their classrooms. Finally, teachers achieved mastery experiences (enactive attainment) as they attempted new strategies in their classrooms and were met with some level of success, which was celebrated at each face-to-face professional development.

## **Methods**

### **Context**

Coladarci (2007) reminds us that the varying definitions of rural make a thick description of context essential for a complete understanding of any study. This assertion has held true in our context as well; while all three of our districts were labeled as eligible for the Rural and Low Income School Program by the U.S. Department of Education at the time of this study, there were also distinct differences.

Three rural communities were part of our study. Grange (all names are pseudonyms) is a small town situated about an hour from the closest moderately sized city and has a population of just over 2,100 residents in its 4 square miles (U.S. Census Bureau, 2014). Grange’s history is inextricably intertwined with the textile mill that operated there for many decades before closing in the 1980s. The town itself, including the school, was built for the sole purpose of operating the mill. Grange’s school district is comprised of three schools (elementary, middle, and high) that serve students from three different counties. The high school, at the time of the study, included grades 6-12, with the middle school building and the high school building located together on one school campus. The school has one central media center, which also serves as the town’s public library.

While Grange and its schools center around its small town, Jamestown is best considered countywide because of the nature of its recently consolidated school district. The county, which is within 45 miles of a moderately sized city, has a storied history that includes several significant Revolutionary and Civil War battles. Across the 54 square miles of the county, there are fewer than 29,000 residents. Within the county are four small towns. All high school students within the county attend the same high school, recently consolidated from three separate high schools. The middle school students in the county are spread across a middle school (grades 6-8) and two elementary schools (grades K-8) with assignment to each school based on where the student lives. Many of the teachers in the district grew up in Jamestown and the surrounding areas and attended the schools in which they now teach.

Franklin is a small town with a population of around 1,200. Actual town limits only cover 1.61 square miles. Franklin is about 50 miles from a thriving tourist city and 20 miles from the county’s most populated city. The land where Franklin sits was first purchased as a timber tract and was once surrounded by cotton, tobacco, and corn fields. Franklin School District is one of five school districts in the county where Franklin is located. While the largest district in the county educates over 15,500 students, Franklin has a student body of 1,163 students in its three schools, all

of which are located on the same street, side by side. Like Jamestown, many teachers in the district attended the same schools in which they were now teaching.

Each community is unique and is deeply influenced by the cultures and traditions of its place. It is also possible to see similarities across the rural communities, located hours apart from one another geographically. Table 1 compares each community's income, education, and demographic information. Taken in conjunction with the descriptions of each community, these data help readers more fully understand the context and thus, "make informed judgments regarding generalizability" (Coladarci, 2007, p. 2).

The towns are remarkably similar in terms of the percentage of people who speak a language other than English at home. The limited numbers of English learners, all lower than the general population of the state (6.8%) and considerably less than that of the general population of the United States (20.7%), reflect the stability of the population within each community. The schools in each community reflect these demographic data, with White, Black, and English learner students represented proportionately to the population. The location of each community may also affect the average income. The proximity to more urban areas means access to more diverse and higher paying jobs. Franklin is located closest to a city, and residents of Franklin often commute to this city for work. In contrast, Grange is located about an hour's drive from a growing metropolitan area, but few residents commute to jobs in that area. Grange also has the fewest residents with a high school diploma or GED, which likely contributes to the fact that this community has the lowest average income and highest poverty rate.

Table 2 highlights the demographics of the schools in each community and offers information about the faculty at each school. Again, despite the distance and the fact that one school district includes several rural areas under its umbrella, there are many similarities between these districts. The percentages of students who receive free and reduced lunches are nearly identical between districts and slightly higher than the 58% average of the state, graduation rates are very similar, and teacher retention rates are all high.

### **Design of the Study**

This multiple case study emerged from a larger study, which employed a concurrent mixed-model design (Tashakkori & Teddlie, 2003; Yin, 1993) conducted over the course of two years. For this article, the three districts were examined as individual cases. These cases were selected on a critical basis, meaning each case was important to the question being observed (Yin, 1993). In this study, rural teachers and their interaction with a NWP site's professional development providers through the use of online forums as

tools for feedback, conversation, and collaboration were the defining characteristics that bound each of our cases (Glesne, 2011).

Using Yin's (2003) methods, we examined each district as a perspective, or unit of analysis. Data presented through teacher blogs and electronic communications, as well as surveys completed by the teachers, were analyzed, offering multiple points of evidence (Barone, 2011). Yin (1993) explains that multiple case study design is used when the researchers are pursuing replication rather than sampling. Thus, our data were compared across districts to gain a more holistic perspective.

As noted earlier, the study involves 36 English language arts teachers from three rural school districts located in South Carolina. The participants in the study teach a variety of English classes (technical track, college preparatory, honors, AP, etc.) in grades 7 through 10. In year one, participants received approximately 60 hours of face-to-face professional development in the teaching of writing. A needs assessment, conducted in the spring and summer of 2013, preceded the professional development to better understand the unique contexts and needs of each district. Teachers met with professional development facilitators and shared what they felt were their students' greatest writing strengths and needs. Small teams of the NWP site's teacher consultants analyzed student samples to further identify students' strengths as writers and areas that could be targeted for growth. Teachers completed short surveys that were also used to help the facilitators further understand the needs of the district.

District and professional development teams met over the summer to develop logic models for the professional development program for each district. These district-focused teams spent four full days together, analyzing the Common Core State Standards, discussing the needs identified through the needs analysis, and developing preliminary plans for professional development. The site used the results of these meetings to identify teacher consultants with expertise in needed areas. These teacher consultants then met for a full week to develop plans for demonstration lessons to share with each district throughout the first year. These district-focused teams gathered again monthly to further refine and develop demonstration lessons and plans for upcoming professional development based on the feedback received from the teachers in the professional development districts and the emerging needs in those districts.

We decided to use an online format, specifically a Google Site,<sup>1</sup> as a repository for resources shared during professional development sessions and as a space to maintain contact with teachers between sessions. The

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<sup>1</sup>See <http://www.google.com/sites/overview.html> for an overview of Google Sites.

Table 1

*Community Demographic Information*

<b>Income and Education</b>					
<b>Town</b>	<b>Median household income</b>	<b>Unemployment rate</b>	<b>Residents living below the poverty line</b>	<b>Residents w/ high school diploma or GED</b>	<b>Bachelor's degree or higher</b>
Grange	\$23,190	5.6%	42.6%	67.5%	13%
Jamestown	\$32,459	7%	21.5%	77%	12%
Franklin	\$41,435	6%	22.6%	77%	24%
<b>Population</b>					
<b>Town</b>	<b>White</b>	<b>Black/ African-American</b>	<b>English Learners</b>		
Grange	77%	21%	4%		
Jamestown	67%	31%	2%		
Franklin	40%	56%	1%		

\*Data from the US Census Bureau, June 2014

Table 2

*School and Teacher Demographics*

<b>School Demographics</b>				
<b>Town</b>	<b>School enrollment</b>	<b>Students receiving free/reduced lunch</b>	<b>Graduation rate</b>	<b>State rating</b>
Grange	473 (grades 7-12)	66%	76.7%	Excellent
Jamestown	4,144 (all grade levels)	68%	82.2%	Good
Franklin	1,163 (all grade levels)	66%	74.7%	Average
<b>Teacher Demographics</b>				
<b>Town</b>	<b>Total teachers in district</b>	<b>ELA teachers, grades 7-10</b>	<b>Teacher retention rate</b>	<b>Teachers with advanced degrees</b>
Grange	31	5	88%	52%
Jamestown	286	21	92%	Not available
Franklin	74	7	87.6%	Not available

\*Data from the SC State Department of Education, 2013

Google Sites were selected because this tool is simple to use and enabled us to have both resources and blogs in one place. A Google Site was established for each district so that teachers could share resources both across classrooms within a school and across buildings and grade levels. We chose to create a blog for each teacher in each district. Research suggested that a hybrid model of professional development, incorporating both an online learning community and face-to-face sessions, is successful (Bonk &

Graham, 2006; Wilson & Ringstaff, 2010), and we felt the blogs would be a convenient way for teachers to engage in an online learning community with both one another and the professional development providers. Teachers were asked to blog after trying a new strategy in their classroom and share what happened with their colleagues and the professional development team: how they used the strategy, what went well, what did not work, and any questions that they had for other teachers or the professional development team. We

also asked teachers to post and share resources they found helpful. Our hope was this scaffold would give teachers the space to share classroom practices with one another, including collaborating on crafting lessons together across buildings, and give the professional development team a way of supporting teachers across physical distances. A lead teacher-consultant for each district monitored and responded to blog posts in an effort to support teachers within the districts. Twenty-two teachers also initially chose to enroll in a graduate course that required monthly blogging about professional texts related to the professional development in their schools on this same Google Site.

### **Data Collection and Analysis**

To date, data have been collected from two surveys of the teachers in the districts, with a 72% response rate on the first survey and a 94% response rate on the second survey. Data have also been gathered from electronic communications and blogs from each teacher participant. To assess the effectiveness of online spaces as support for rural teachers involved in the professional development program, we first tabulated how frequently individual teachers posted. We then examined each post, using the constant comparative method (Glaser & Strauss, 1967), which allowed us to identify significant emergent statements and themes. Each statement was considered a significant element of communication and given a summarizing code. After initial coding was complete, the codes were reexamined, and new themes were identified and existing themes further refined. After examining all the significant statements and codes, codes were categorized, distilling them into major categories. Two of the authors coded 60% of the blog posts. To select these posts, the first author selected at least 50% of the teachers in each district that participated; teachers within each district selected represented a range of posting frequency from the lowest number of posts and the highest number of posts. Inter-rater reliability was 92%. Table 3 illustrates themes, codes, and excerpts from our data that are representative of our coding.

### **Results**

Were the blogs and Google Sites an effective tool for supporting teachers from a distance, giving teachers a space for questions, conversation, and collaboration with one another and professional development providers? Did the online learning community that prior research encouraged (Bonk & Graham, 2006) develop? Data provided mixed results.

### **Use of Blogs for Collaboration**

Blogging by teachers varied throughout the year, with one teacher posting as many as 46 blog posts, and 11 teachers posting no responses at all. Table 4 summarizes the frequency of teachers' posts across districts, as well as the average word count found in posts. Teachers who enrolled in an optional course that the professional development providers offered posted more frequently than those teachers who did not enroll in a course. Posting to the blog several times was a requirement of the course. Although we initially thought we might see differences in the blog posts between districts in terms of frequency, length, and themes, these differences did not emerge. Rather, we found that themes in the qualitative analysis of the blog posting recurred across the school districts. We also noted that each school district in the study had teachers who chose not to post at all and some teachers who posted more frequently.

In the first survey that we administered, teachers' self-reports indicated that they were using the Google Sites for different purposes. The responses to the initial survey ( $N=26$ ) indicated that the Google Site set up for each district was used primarily to download resources and materials from teaching demonstrations (73%) and review previous professional development session materials (92%). Table 5 summarizes the initial survey responses from the teachers in each district regarding Google Sites. Although blogs were found on the Google Site, they were not typically the reason teachers visited the Google Site.

Whereas all the districts responded that the majority of teachers in each district used the Google Site to review materials from the professional development sessions, one of our smaller districts, Franklin, used the Google Site less to download materials (40% of teachers responding) than did Jamestown (82% of teachers responding). On the other hand, teachers in the two smaller districts, Franklin (60%) and Grange (75%), with three schools in each district, seemed to use the site more for blogging than did the larger district of Jamestown (18%), at least according to the teachers' self report in the initial survey. Qualitative analysis of the blogs indicated that this self-report may not have been accurate, as all sites had teachers who blogged from zero to sixteen times, with no distinct pattern in the frequency.

Although in their self-reports 35% ( $N=26$ ) noted they were using the site to collaborate with other teachers in their district, we did not see affirming evidence of this in the blog posts. One teacher did note that she was planning to collaborate with a science teacher, and another teacher mentioned a colleague and wrote about "following her lead" referring to another English teacher at her school (blog post, February 26, 2014). A second teacher specifically mentioned

Table 3

*Coding Scheme Using Constant Comparative Methods of Analysis*

Theme	Code	Example
<b>Implementation Reporting</b>	Plans for future implementation	“Next I plan on using the idea from the demonstration - Collect Texts From Your Life. I am hoping that this class will be excited about looking for arguments outside of the classroom” (A., blog, 4/2).
	Procedures followed during implementation	“The requirement was at least two pages, skipping lines. Most students wrote over two pages. I had them skip lines while writing so they could go back and add describing words to each of the sentences in their diary entry. I had them write for about twenty minutes then I stopped them and explained what I wanted them to do in between the lines they had skipped. I did an example on the Smartboard to show them so they would understand what I was asking them to do. I gave them red pens so they could distinguish the additions to their entry” (J., blog, 2/28).
<b>Concerns</b>	Strategies used directly from PD	“I used the Funds of Knowledge as our introductions on the first day” (L., blog, 9/5).
	Citing concerns about implementation	“I am, however, concerned about some of the other parts of our writing instruction. The “G word” comes to mind and doesn’t easily rest in the background. Grammar seems to take a backseat. I worried about the conventions and mechanics that do not have room” (W., blog, 10/30).
<b>Collaboration</b>	Exchanging ideas with other teachers	“Just read R’s blog about having her students write a praise poem about their community now that there are so many activities happening. Writing this poem now will also be helpful to refer to when they write a poem about the Macomb community in <i>To Kill a Mockingbird</i> . Thanks, R!” (T., blog, 10/5).
	Reports of collaboration with one another	“I have already shared this idea with Mrs. K, the 8 <sup>th</sup> grade science teacher....She and I are going to try and put our heads together to find a way to do this” (B., blog, 3/28)
<b>Questions</b>	Sharing resources with one another	“I make use of Ben Bache’s PBL Project weekly “Common Core Thinking” lessons. I get them through email, but I’m not sure everybody is receiving them” (T., blog, 11/17).
	Used to seek information/ input	“Anyone have a suggestion for a model text for sensory details? (B., blog, 12/18).
<b>Reflections on reading(s)</b>	Used as a rhetorical device	“The end-result, from what I have been reading, is that teachers are not only preparing students for college, but for careers (hence the college and career readiness). How does this apply to me as a teacher?” (M., blog, 9/27).
	Reflections on texts shared during PD/ graduate course	“I recognized myself many times in this chapter as they talked about poorer types of writing assignments. I really do enjoy reading about ways to elevate my writing assignments and appreciated reading about argumentative writing in the context of literature” (B., blog, 1/26).
<b>Positive Reactions</b>	Positive student reaction to implementation	Natasha asked, “Do you know a good website where I can find all this stuff, Anna?” Anna told her to go to Google and enter “eye color genetics” and pointed to a site that had the relevant information for the project (field notes, 4/14).
	Positive teacher reaction to implementation	“The students were very open to it and they enjoyed debating both sides...The students wanted to know if we could do things like this again. Even the students who are difficult to engage in the lesson found this interesting” (J., blog, 11/19).

Table 4

*Frequency and Length of Blog Posts*

Number of posts	Number of teachers	District			Average length of post (word count)	Enrolled in course?
		Franklin	Grange	Jamestown		
0	11 (30%)	3 (44%)	2 (40%)	6 (29%)	NA	
1	5 (15%)	1 (14%)	-	4 (19%)	172	
2	8 (24%)	1 (14%)		7 (32%)	227	
4	1 (3%)			1 (5%)	98	
6	1 (3%)		1 (20%)		151	
8	1 (3%)			1 (5%)	152	Yes
9	1 (3%)		1 (20%)		144	Yes
10	1 (3%)	1 (14%)			176	Yes
12	2 (6%)			2 (10%)	292	Yes
16	1 (3%)	1 (14%)			310	Yes
>16	1 (3%)		1 (20%)		219	Yes

*N*=33

Total posts=144

\*Figures in parentheses equal percentage of respondents for the pertinent category

reading a colleague's blog post: "Just read R's blog post about having her students write a praise poem about their community.... Thanks R!" (blog post, October 5, 2013). These posts were the only mentions of collaboration found in the blogs.

Questions were also not prevalent in the posts, and there were few exchanges that occurred through the blogs. A total of two questions were asked throughout the posts that were intended to solicit answers or information. One was a technical question: "I was looking for the clip that was used in our in-service. Any clue on where to find it?" (blog post, November 10, 2013). The second asked for help with resources: "Anyone have a suggestion for a model text for sensory details?" (blog post, December 18, 2013). Any remaining questions were used as rhetorical devices by a single teacher when offering reflections on assigned readings for the course in which she was enrolled. For example, after reading a required chapter, she questioned the text: "Is it rational to think that the student would benefit from his/her failure? Does it hurt self-efficacy? Or does the diagnostic test create students reluctance?" (blog post, January 23, 2014). Any exchanges in the blogs were responses by a professional development provider to a teacher in one of the study districts. No direct conversations between teachers were evident.

Blog posts largely contained implementation reports; teachers posted which strategies modeled in the professional development programs they had tried in their classrooms and typically described the procedures they followed or steps they took. For example:

Today I attempted the text coding activity again, this time with my CP classes. With them I modeled exactly how I had marked up the text. When they finished reading and marking, I passed out the aha charts (blog post, September 12, 2013).

Some of the posts were less detailed but reported implementing shared ideas and strategies. Of the 144 posts made, 78 (54%) of the posts were primarily implementation reports by teachers.

For teachers enrolled in the class, a required element was reading texts and posting reflections on assigned readings. Forty-nine posts (34%) were primarily reflections on readings. Teachers enrolled in the graduate course often focused their posts on the reading, usually connecting their own experiences as teachers and writers to the reading. For example, the following excerpt comes from one teacher's reflection on chapter 4 of *Teaching Adolescent Writers* (Gallagher, 2006):



Table 5

*Cross Tabulation of District Response to Survey One*

Question		District			Total
		Franklin	Grange	Jamestown	
Have you been using the Google Site for your district to download materials?	Yes	2 (40%)	3 (75%)	14 (82%)	19 (73%)
	No	3 (60%)	1 (25%)	3 (18%)	7 (27%)
	<b>Total Responses</b>	5	4	17	26
Have you been using the Google Site for your district to review what was presented at the previous professional development sessions?	Yes	5 (100%)	4 (100%)	15 (88%)	24 (92%)
	No	0 (0%)	0 (0%)	2 (12%)	2 (8%)
	<b>Total Responses</b>	5	4	17	26
Have you been using the Google Site for your district to communicate with other teachers in your district?	Yes	2 (40%)	1 (25%)	6 (35%)	9 (35%)
	No	3 (60%)	3 (75%)	11 (65%)	17 (65%)
	<b>Total Responses</b>	5	4	17	26
Have you been blogging on the website regularly?	Yes	3 (60%)	3 (75%)	3 (18%)	9 (35%)
	No	2 (40%)	1 (25%)	14 (82%)	17 (65%)
	<b>Total Responses</b>	5	4	17	26

*N*=26

\*Figures in parentheses equal percentage of respondents for the pertinent category

I was able to take a lot away from this chapter on using real world models. I am always going to workshops and conferences that stress the importance of using real world exemplars, but no one ever shows you exactly how to do it. I am someone who needs to be shown and to let me participate in the activity/strategy for me to really be able to use it effectively (blog post excerpt, September, 26, 2013).

Teachers also often posted about plans for future implementation of strategies modeled in their classrooms. Thirty-eight posts (26%) fell into this category, including specific details about using strategies at some time in the future. Responses included plans for immediate use of modeled strategies: “Tomorrow we will use the Say-Mean-Matter chart along with the articles from the class demonstrations” (blog post, February 17, 2014). Others included plans to teach specific topics later in the year:

“Now I plan on not just doing a mini-lesson on strong verbs but also I need to plan one on what are sensory details and how to use them effectively” (blog post, December 18, 2013).

#### **Other Emerging Themes**

In addition to reporting on implementation, plans for implementation, and reflecting on reading assignments, teachers also posted positive reactions that they and their students had to the implementation of new strategies. In 23 blog posts (16%), teachers mentioned students’ positive response to a strategy or their own positive reaction. Examples of positive reactions included cautiously optimistic statements: “It went more smoothly than I expected” (blog post, December 11, 2013). Other bloggers were more overt in their enthusiasm: “Even the students who are difficult to engage found this lesson interesting” (blog post, November 19, 2013); “So proud of my students ... they did great on their ‘Where I’m From’ poems” (blog

post, September 19, 2013). Many of these positive reactions were included at the end of implementation reports. Finally, several blog posts noted concerns teachers had as they moved forward in their classrooms trying new writing strategies. Twelve posts (8%) included these reactions. Sometimes these posts were concerns that teachers had before they implemented the strategy and were simply part of their implementation report. For example, one teacher wrote, “I was a little unsure if I would get to conference with all of my students in one day” (blog post, December 11, 2013). These concerns tended to resolve themselves within the post as the teacher reported on the outcome of the implementation. Teachers also brought up broader issues. For example, one teacher wrote, “My biggest challenge is building stamina for working independently” (blog post, November 10, 2013). These concerns occurred in fewer of the posts (less than 2%).

### **Obstacles to Blogging**

Due to the limited number of blog posts in the first few months of the project, we surveyed teachers halfway through the academic year and asked, specifically if they were not blogging regularly, why. Twenty-six teachers (72%) responded to the survey. Overwhelmingly, teachers indicated that time constraints were the biggest obstacle to their blogging. On the constructed response question regarding blogging, 71% of respondents commented on a lack of time in their day to blog. One teacher summed up the views of the group well when she noted, “I have not been blogging regularly because there is so much to do with planning, teaching, searching for materials, accessing materials, and assessing that there is little time for anything else” (survey, Fall 2013). Those teachers who were blogging indicated they were part of the graduate course and therefore were required to blog regularly, or they were encouraged to blog through reminder e-mails from the university professional development facilitators.

In addition to time constraints, respondents also indicated that they could not access the Google Site from their workstation in their buildings because their districts had blocked Google e-mail accounts and related sites for all users (17%). Several teachers indicated they were unfamiliar with the technology needed to blog or simply did not like to blog (8%). One teacher noted in her blog, “At the risk of sounding like I’m of a remedial level of intelligence, I would like to mention that I have never blogged before. I’m sorry if I’m not doing this correctly or posting in the right place” (October 30, 2013). Of the teachers who were not blogging, a few noted that they were in a small and close-knit department and felt they were getting all the advice and ideas they needed from one another (8%). Another indicated that the blogging felt repetitive to their discussion during in-service and/or in-class professional development sessions (4%). Seven respondents (27%) mentioned

enjoying connecting with other English teachers or reading what is working for other people in their classrooms as reasons to use the blog.

### **Discussion and Implications**

The online component of the professional development structure seemed like a valuable component in our design for these distant rural districts (Bonk & Graham, 2006; Wilson & Ringstaff, 2010); we saw it as a way to connect teachers with one another across classrooms and buildings, as well as a tool for teachers to connect with our teacher consultants involved in delivering the professional development in their districts. We hoped that the Google Sites would serve as a repository of resources for teachers, as well as a tool for more continuous and consistent contact with teachers in locations not readily accessible to the professional development providers. However, in this study the use of the Google Sites and blogs seems to have been largely limited to use as a resource to download information, rather than as a platform to ask questions, collaborate with peers, or post information for other teachers about what is working in a classroom. This discovery led us to consider some of the obstacles that may be impeding the use of these sites as spaces for dialogue and discourse.

#### **Obstacle One: Time**

One obstacle that we readily identified was time. According to our survey, three-quarters of our teachers felt pressed for time, and spending time online blogging may be viewed as just one more item to complete. Responses from teachers about this obstacle were clear—teachers felt overwhelmed and described being unable to tackle one more thing. Although online environments to enhance teacher knowledge may be increasingly popular and hold promise for professional development of teachers in the field (Dede, 2009; Owston, 2009), teachers likely need to feel the investment of their time yields immediate benefit. Upon reflection, we realized that our introduction of the blogs to the teachers early in the professional development program may not have adequately highlighted our perceived benefits to the teachers. Rather, the way we introduced the blogs may have resulted in the results we received: largely implementation reports and reflections on readings. Although these blog posts did offer the professional development providers a glimpse as to what was happening in distant classrooms, these types of entries likely did not enrich the experience for the majority of our participating teachers. A mere 27% of survey respondents used the blogs as a way to connect with other English teachers. We also understand that our stance toward technology may differ from that of the teachers in these districts, and perhaps this tool was one that they were less comfortable using than other options that they have at their disposal (e.g., e-mail).

### **Obstacle Two: Variability of Technology within a School District**

Our professional development team identified access to digital tools as a second obstacle. Each school building within and between districts, although wired in some way to the Internet, had a wide variability in the level of access to technology, both for teachers and students. At some schools, there was a single computer for teacher use in a classroom, and other teachers in the same building had an iPad and Apple TV in their classroom. In some districts, all Google products were blocked for teachers and students. Other schools had unreliable Internet connections that often resulted in being disconnected from the Internet while using computers. This uneven availability of technology, in addition to the complications of unreliable Internet service in some buildings, may have led to frustration because teachers could not access the Google Site when they needed it or when they wished to blog. This finding reflects Purcell, Heaps, Buchanan, and Friedrich's (2013) study, which found that teachers of the lowest income students were more likely to be restricted in their school environment when using technology in the classroom. Similarly, Howley, Wood, and Hough's (2011) study of rural elementary school teachers found that despite reports of increasing technological access, rural teachers still face barriers to accessing technology. As all our schools had a high percentage of low-income students, we should not have been surprised that these rural schools also had restricted Internet use.

### **Obstacle Three: Going Public**

Asking teachers to blog is essentially a form of asking teachers to become more public with their practices. As Barth (2006) notes, teachers often engage in behaviors similar to "parallel play" in schools; we teach in close proximity to one another but are completely absorbed in our own work (p. 9). Opening our doors to one another, even through the written word, may be a frightening proposition for some teachers. Some of our teachers were clearly more comfortable than others with posting their practices, including what went well and what fell flat; a single teacher posted 46 times, while other teachers posted little or nothing at all. For those teachers who did post and share their work, it was clear that at least a few colleagues appreciated their postings. When we gave our survey, we found 27% of respondents enjoyed reading about what their peers were doing in their classrooms. When teachers had questions regarding the implementation of strategies modeled or plans developed during professional development, they almost never posted those questions on a blog, even though members of the professional development team regularly read and responded to the blogs. Rather, teachers often chose

to e-mail a specific person on the professional development team, rather than post their questions online. This choice may have simply been a matter of convenience; it is faster and more direct to e-mail than log onto a website and blog. It also may have represented a desire for privacy. Howley and Howley (2005) note the professional isolation teachers often experience in rural settings, as well as a reluctance to criticize professional behaviors. Given this context, letting all your colleagues know that you have questions or are asking for assistance may or may not be something a teacher feels comfortable sharing.

### **Moving Forward**

Given the limited amount of time that teachers feel they currently have in their professional lives (Melnick & Meister, 2008), it is clear that teachers need to see any online activity as something from which they or their students will directly benefit. Too often, professional development is seen as one more activity added to a teacher's ever growing to-do list, rather than as an opportunity for enrichment (Knight, 2000). In our study, Google Sites served as an effective tool to store and disseminate information and materials shared during professional development sessions. Teachers found it to be an effective support in their implementation of writing strategy instruction in their classrooms and reported downloading the information available on the site regularly. In all likelihood, navigating to the site was ultimately a time-saver for teachers. Rather than searching for materials, they could find them neatly organized in a single location. The blogs were not as successful. Perhaps this is because the blogs required more active engagement from teachers, as they wrote on a site that ultimately other teachers and professional development providers could and would view. It may be that teachers who have the highest self-efficacy are the most willing to engage in sharing their practices with others in an online space. Fostering a feeling of expertise and a willingness to share practices with one another, as well as learn from one another to develop a true community of practice (Lave & Wenger, 1991), seems to be a necessary step in establishing a meaningful online space for professional development. Howley and Howley (2005) call for such communities of practice in rural schools, noting that professional development in rural schools should capitalize on the expertise of the teachers and their knowledge of and commitment to the communities they serve.

Furthermore, teachers need to see the purpose in sharing their work with others, rather than seeing the online space as an "extra" and unnecessary portion of the professional development experience. Research into how to better engage all teachers, regardless of technological proficiency, in an online space for professional development is needed

before we assume that adding the online dimension will truly benefit all participants. This approach is especially true for teachers in rural settings, where professional development opportunities may be limited due to funding, and teachers may find themselves working in professional isolation (Howley & Howley, 2005). Providing high quality, supportive professional development to teachers who may have fewer such opportunities is critical for ensuring the health of our rural schools.

Since we agree with researchers who see the promise of digital tools for hybrid learning spaces (Greenhow, Robelia, & Hughes, 2009) and possibilities for professional development (Bonk & Graham, 2006; Dede, 2009; Owston, 2009), we are interested in exploring further a restructuring of our initial blog environment, asking ourselves what we can do to help teachers see this as an engaging and beneficial space. Clearly the purpose we established in our blog space at the start of our professional development did not meet the needs of our teachers. Although it may have given professional development providers some insights into what was happening in classrooms when they were off-site, it did not become the rich community we had hoped would develop. Instead of expecting professional development providers to introduce the online space using their own parameters, engaging teachers in a conversation to develop a shared purpose for the space, with clear mutual understandings of its purpose and possible benefits, may make an online space like a blog one in which teachers feel more invested.

In light of Howley et al.'s (2011) finding that rural teachers have more positive attitudes toward technology despite not necessarily having technological access and preparation, we want to explore the limitations we found with the teachers' use of the blogs. As in other research, such as formative designs, we did not seek out failure, but we embrace the opportunity to learn from it (Reinking & Bradley, 2008). Although we seem to be having some success with implementation of writing strategy instruction without full use of the teacher blogs, we cannot help but wonder how much more effective the professional development might be if all the teachers involved were part of an active online community of learners as well. As research has noted, effective professional development is collaborative and collegial (Darling-Hammond & Richardson, 2009), with ongoing coaching and support for teachers (Quick et al., 2009; Bean & Morewood, 2007). Online spaces have, in previous studies, emerged as promising avenues for developing an active and engaged community of practice (Holmes et al., 2011; Bonk & Graham, 2006). For some rural schools, digital tools may be the only way to bridge the physical distance and develop the long-term partnerships with professional development providers recommended for successful professional development (Darling-Hammond &

Richardson, 2009). Discovering ways to make these digital spaces accessible, engaging, and valuable for teachers is a critical component in ensuring a quality education for a quarter of our nation's students.

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